2, 1, 5 94K I-052

CALFED INQUIRY SUBMITTAL

Project Title/Applicant:	**Pier 98 Wetlands Restoration, Port of San Francisco**
Project Contact:	Carol Bach, Project Manger
	Ferry Building, Suite 3100, San Francisco, CA 94111
	Phone: (415) 274-0568 Fax: (415) 274-0586
RFP Project Group:	Public Works/Construction

Project Description and Objectives: Pier 98 is a 25-acre peninsula comprised of artificial fill, located on the southeastern bay shore of the City and County of San Francisco (City) (Figure 1). Approximately three acres of saline emergent wetlands, which offer foraging habitat for waterfowl and shorebirds, have become established at the site. However, habitat quality is degraded by the presence of debris, and impermeable hard panne areas that prevent establishment of significant vegetation or invertebrate colonies. Existing ecological habitats are illustrated in Figure 2. The Port of San Francisco (Port) proposes to enhance existing wetlands and create five acres of new tidal wetlands at Pier 98.

Approach/Tasks/Schedule: The project consists of the following phases: 1. Pre-design (site assessment, coordination with agencies and community groups, alternatives analysis, selection of conceptual design); 2. Design (engineering and ecological design, agency and public review, development of final design drawings and construction specifications); 3. Pre-construction (environmental review, permitting, contractor selection); and 4. Construction.

During construction, existing wetlands will be improved by removing debris and grading to facilitate drainage. Hard panne within the wetlands will be replaced with sediment to promote establishment of plant and invertebrate colonies that provide food for waterfowl and shorebirds. Ground surface will be excavated to create five acres of new tidal wetlands at appropriate elevations. Upland areas will be revegetated with native plants. The transition zone between the newly created wetlands, and the upland area will be planted with native vegetation characteristic of this habitat type. Public access areas will be designed, and interpretive and educational materials will be posted to increase public awareness and understanding of wetlands functions, and minimize human disturbance that cannot be eliminated in an urban setting. Proposed wetlands restoration areas are illustrated in Figure 3.

Pre-design activities have been completed. Preliminary design plans are currently being developed by consultants, Levine-Fricke-Recon (LFR), under contract to the Port. The Port is in the process of obtaining all necessary permits and approvals, and completing environmental review. Completion of permitting, final design, and bid specifications is anticipated by spring 1998. With sufficient funding, the Port will hire appropriately qualified contractors to complete construction and environmental oversight. The Port will select contractors in accordance with the City's contracting requirements. The Port proposes to begin construction by summer 1998, and finish by fall 1998.

Justification/Compatibility with CALFED Objectives: The proposed project will fulfill CALFED program objectives by increasing the quantity of saline emergent wetlands, identified as a priority habitat; and improving habitat quality for migratory birds, identified as a secondary priority population to be supported by CALFED. Specific stressors that will be addressed include habitat loss, competition from exotic plant species, and human disturbance.

Budget Costs: Planning and design costs, staff time (permitting, public outreach, administration, and project management tasks), and associated overhead will be funded by the Port. Based on the proposed conceptual design, construction costs are estimated at a total of $1,944,000. The City has committed to contribute $1 million toward implementation. The Port seeks funding from CALFED for the remaining $944,000 required to complete construction. Costs are itemized in Tables 1 and 2.

Third Party Impacts: Based on the current and anticipated future uses of the site, significant third party impacts are not anticipated. Environmental review by the City's Planning Department is in progress, and will evaluate potential third party impacts and associated mitigation measures.

Applicant Qualifications: The Port's Project Manager will manage consultants and contractors implementing the design, construction, and post-construction maintenance and monitoring phases of the project. Engineering and ecological design is being conducted by an inter-disciplinary team lead by LFR, under contract to the Port. Project design team personnel have extensive experience with similar projects, including Montezuma Wetlands restoration at Suisun Marsh, Oro Loma Marsh enhancement in Hayward, and Martin Luther King Jr. Regional Shoreline Wetlands Project in Oakland, California.

An appropriately qualified construction contractor/team will be selected by a competitive process in accordance with the City's contracting requirements. Bid specifications developed by the design team will include requirements for the construction contractors/teams' qualifications in wetlands restoration, native plant landscaping and other technical expertise. An independent firm with expertise in tidal wetlands restoration will be hired under a separate contract with the Port to oversee construction and ensure that it conforms to specifications, including protection of existing wetlands and compliance with other applicable laws and regulations.

Monitoring and Data Evaluation: The Port and design consultants will develop a monitoring program to establish baseline ecological functions, measurable goals for monitoring improved ecological function, and methods for monitoring progress with respect to goals. Benchmarks used to evaluate benefits derived from the project may include acreage/coverage by salt marsh vegetation or native plant communities, diversity and/or intensity of wildlife use, or quantity/quality of food supply. Development and implementation of a qualitative and quantitative monitoring program could serve as a model for gauging the effectiveness of habitat restoration, and provide data regarding benefits achieved by specific project elements.

Local Support/Coordination: The project concept has been presented at numerous regulatory agency and public meetings over the past year, and enjoys substantial support. Local community groups have written letters of support. The Golden Gate Audubon Society has long advocated preservation and enhancement of wetlands at Pier 98 and testified in support of the project at public agency meetings. In conjunction with other tidal wetlands restoration projects proposed by the City's Recreation and Park Department, restoration of tidal wetlands at Pier 98 will contribute to the creation of significant wildlife habitat on San Francisco's southeastern shoreline and enhance the ecological benefit provided by each project.

TABLE 1: BUDGET AND COST SHARING

Project Phase and Task	Port Staff Labor Hours [1]	Port Staff Salary and Benefits [1]	Overhead [1]	Service Contracts	Total Costs
Design – Phase I: Site assessment, selection of conceptual design, permitting	12 mo. Project Manager @ 30% time to project	$18,300	$2,000	$75,800 [2]	$96,100
Design – Phase II: Preliminary design, 60% engineering	4 mo. Project Manager @ 30% time to project	$6,500	$700	$62,300 [2]	$69,500
Design – Phase III: Final design, complete construction plans and bid specifications	6 mo. Project Manager @ 30% time to project	$9,700	$1,000	$44,400 [2]	$55,100
Subtotal: Design		***$34,500***	***$3,700***	***$182,500***	***$220,700***
Construction – Phase I[3]: 3 acres wetlands enhancement, 3.7 acres wetlands creation, public access improvements, non-inert fill area cover.	3 mo. Project Manager @ 50% time to project	$8,100	$800	$1,473,000 [4]	$1,481,900
Construction – Phase II[3]: 1.3 acres additional wetlands creation	1 mo. Project Manager @ 30% time to project	$1,900	$200	$471,000 [4]	$473,100
Subtotal: Construction		***$10,000***	***$1,000***	***$1,944,000***	***$1,955,000***
Post-Construction Monitoring & Maintenance: Biological monitoring, landscape maintenance, general maintenance and repair	1 yr. Project Manager @ 5% time to project	$3,000/yr.	$300/yr.	$61,700/yr.	$65,000/yr.

Notes:

(1) Port staff time and overhead costs (administration, contract management, miscellaneous materials) are funded by the Port, and are not intended to be charged as a direct cost to the project.

(2) The Port's existing service contract with Levine-Fricke-Recon includes professional ecological and engineering design services, and is currently funded from the Port's capital budget.

(3) If funding constraints dictate, wetlands creation could be implemented in two phases, as illustrated in Figure 3. However, implementing both phases concurrently would be substantially more cost effective. Furthermore, if the two phases were implemented separately the transition zone vegetation planted after Phase I would subsequently be disturbed, and new transition zone vegetation would be planted with implementation of Phase II. Consequently, the Port proposes to implement both phases with one bidding and construction effort.

(4) Service contracts for the construction phase will include labor and materials costs as itemized in Table 2.

Table 2
Preliminary Construction Cost Estimate
Pier 98

Description	Quantity	Units	Unit Cost	Total Cost
Direct Capital Costs				
Baseline Amenities				
Restriping of Parking Lot	20	ea	$80	$1,600
Entry Gates:				
12' emergency gate	1	ea	$1,200.00	$1,200
pedestrian entry gate	1	ea	$600.00	$600
Beach Access Trail	1	ls	$600	$600
Alternative Amenities				
Picnic Tables on Concrete Slabs	2	ea	$1,200	$2,400
Metal Benches	4	ea	$850	$3,400
Fish Cleaning Stations	2	ea	$5,000	$10,000
Wetlands Viewing Area with Bird Blind	1	ea	$30,000	$30,000
Wind Sheltered Viewing Area	1	ea	$30,000	$30,000
Educational Signage	8	ea	$350	$2,800
Portable Restrooms including Maintenance for 5 Years	2	ea	$7,500.00	$15,000
Litter Container	15	ea	$150.00	$2,250
Barbecue Pits	3	ea	$1,000	$3,000
Uplands Area				
Clearing and Grubbing	10	acres	$1,300	$13,000
Offhaul of Clearing and Grubbing Material	7740	cy	$32.00	$247,680
Site Preparation and Grading	15000	cy	$10.50	$157,500
Installation of Geotextile	200000	sf	$0.75	$150,000
AC Pavement for Handicapped Public Trails	12150	sf	$3.50	$42,525
Gravel Access Road	12000	sf	$2.50	$30,000
Raising of Wells	5	ea	$2,000	$10,000
Landscaping				
shrubs and trees	35000	sf	$1	$35,000
native grass hydroseeding	15	acres	$2,200	$33,000
weed control: irrigation - 2 weeks	15	acres	$400	$6,000
spraying - twice	15	acres	$1,000	$15,000
water truck for irrigation	2	years	$5,000	$10,000
Wetland Areas				
Removal and Disposal of Non-Usable Material and Debris	720	cy	$45	$32,400
Breaking of Concrete Debris for Shoreline Protection	1680	cy	$20	$33,600
Excavation of Soils	8000	cy	$12	$96,000
Silt Fence	2500	lf	$1	$2,500
Total Direct Costs:				$1,017,055

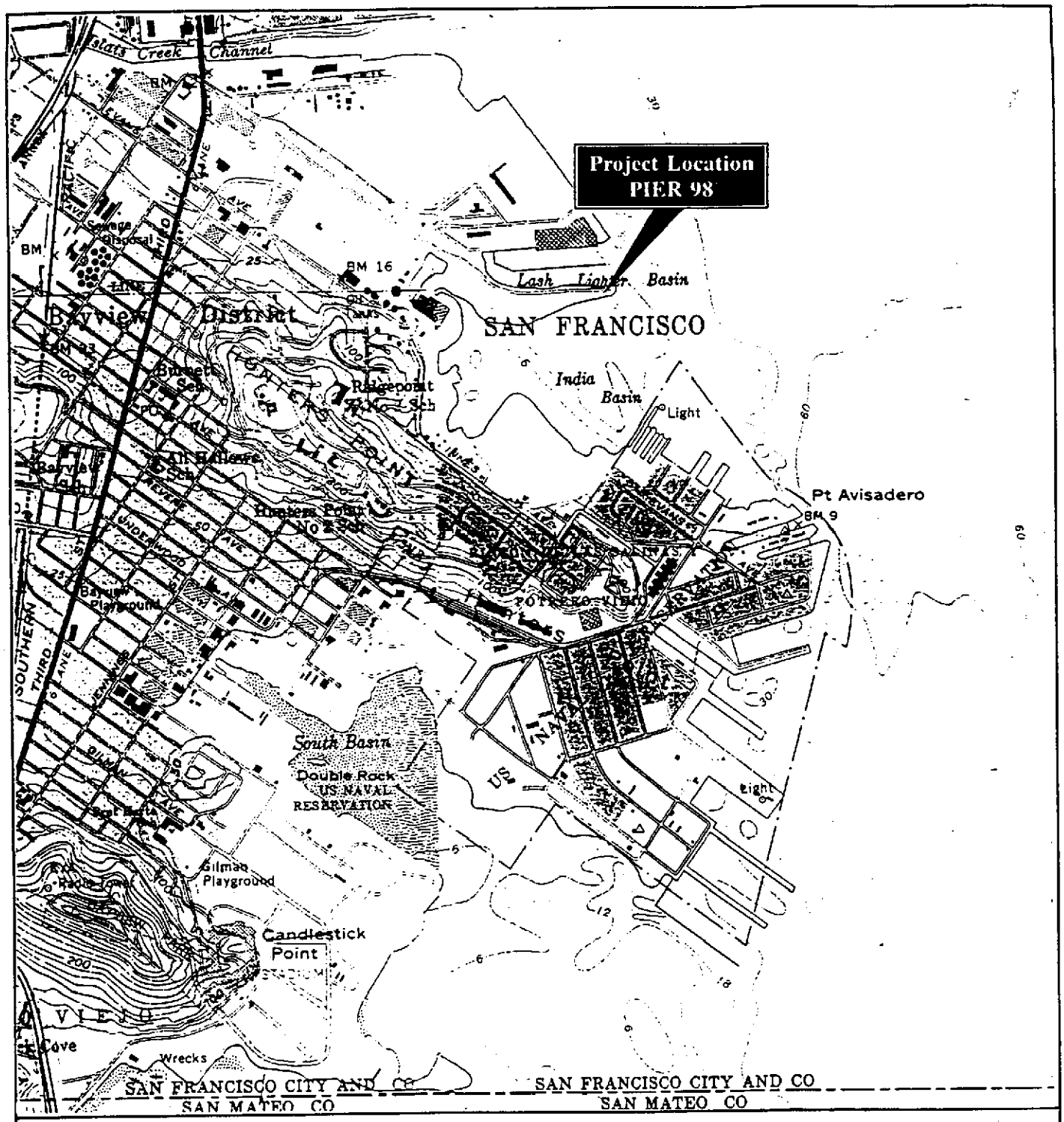
I-007624

Table 2
Preliminary Construction Cost Estimate
Pier 98

Description	Quantity	Units	Unit Cost	Total Cost
General Condition (QA/QC, submittals, etc.)	8	%	$1,017,055	$81,364
subtotal				$1,098,419
Construction Contingency	15	%	$1,098,419	$164,763
subtotal				$1,263,182
Bonds	2	%	$1,263,182	$25,264
subtotal				$1,288,446
Contractor Overhead and Profit	8	%	$1,288,446	$103,076
subtotal				$1,391,522
Escalation to Midpoint of Construction	2	%	$1,391,522	$27,830
Total Estimated Construction Cost:				**$1,419,352**
Additional Engineering and Permitting Costs				
construction monitoring and training	1	ls	$40,000	$40,000
post construction survey	1	ls	$6,000	$6,000
Contingency	15	%	$46,000	$6,900
Total Engineering and Permitting Costs:				**$52,900**
ESTIMATED TOTAL PROJECT COST				**$1,472,252**

PHASE II - ADDITIONAL 1.5 ACRE WETLANDS CONSTRUCTION

Description	Quantity	Units	Unit Cost	Total Cost
Excavation of Soils	10,100	cy	$7	$70,700
Transport and Disposal at Class III Landfill	12,120	cy	$18	$218,160
Breaking of Concrete Debris for Shoreline Protection	2,500	cy	$20	$50,000
Subtotal				$338,860
Indirect Construction Costs (general, bonds etc.)	39	%	$338,860	$132,155
Total Phase II Costs:				**$471,015**



MAP SOURCE: U.S.G.S. 7.5' Quadrangle:
Hunters Point, California and
San Francisco South, California
Date: 1956, Photorevised: 1980

N

0 1/2 1 MILE

PORT OF SAN FRANCISCO

Pier 98 - Location Map

Levine-Fricke-Recon

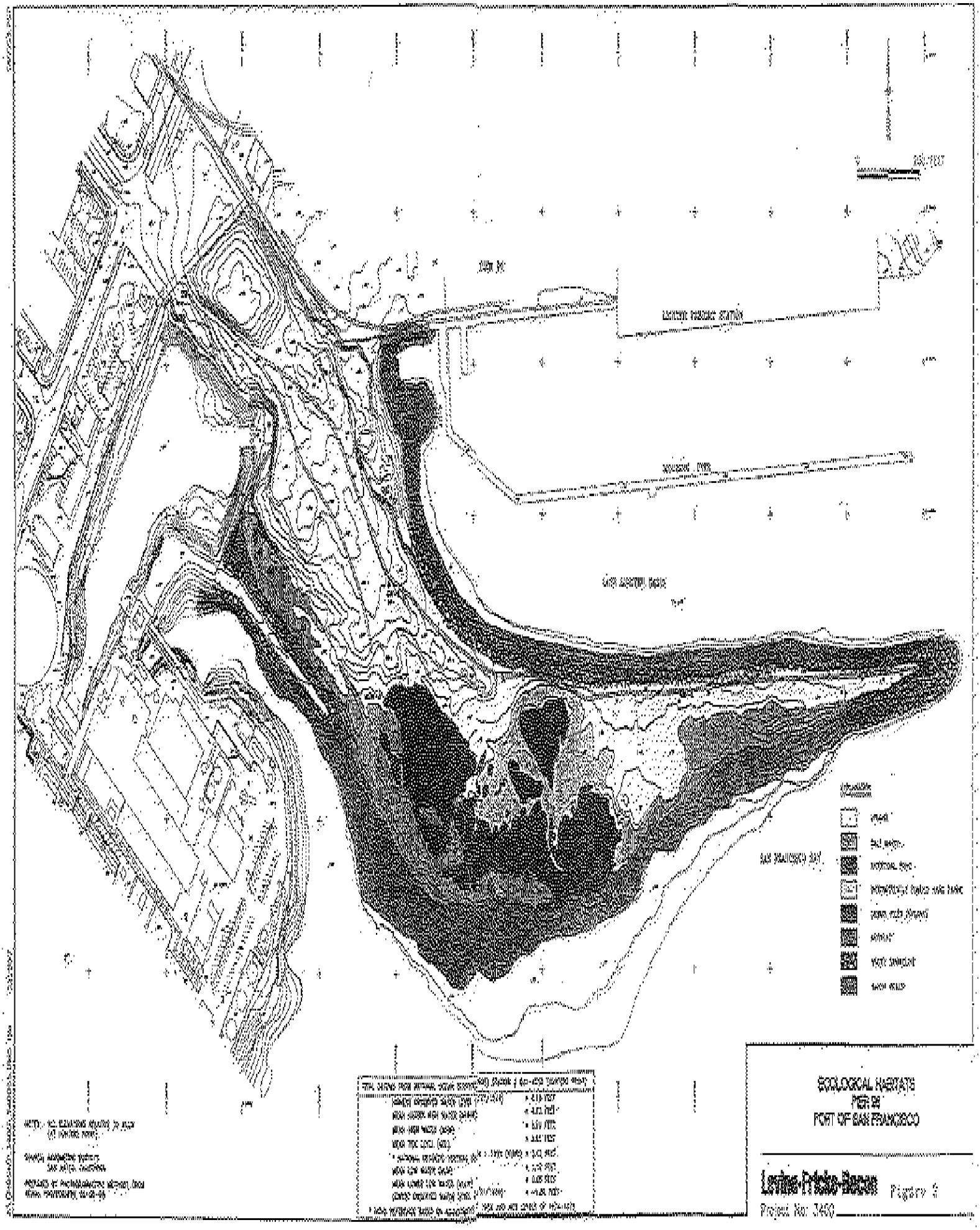
Figure 1

Project No. 3400

3400SV01.CDR 020797RYL:AJG

I —007626

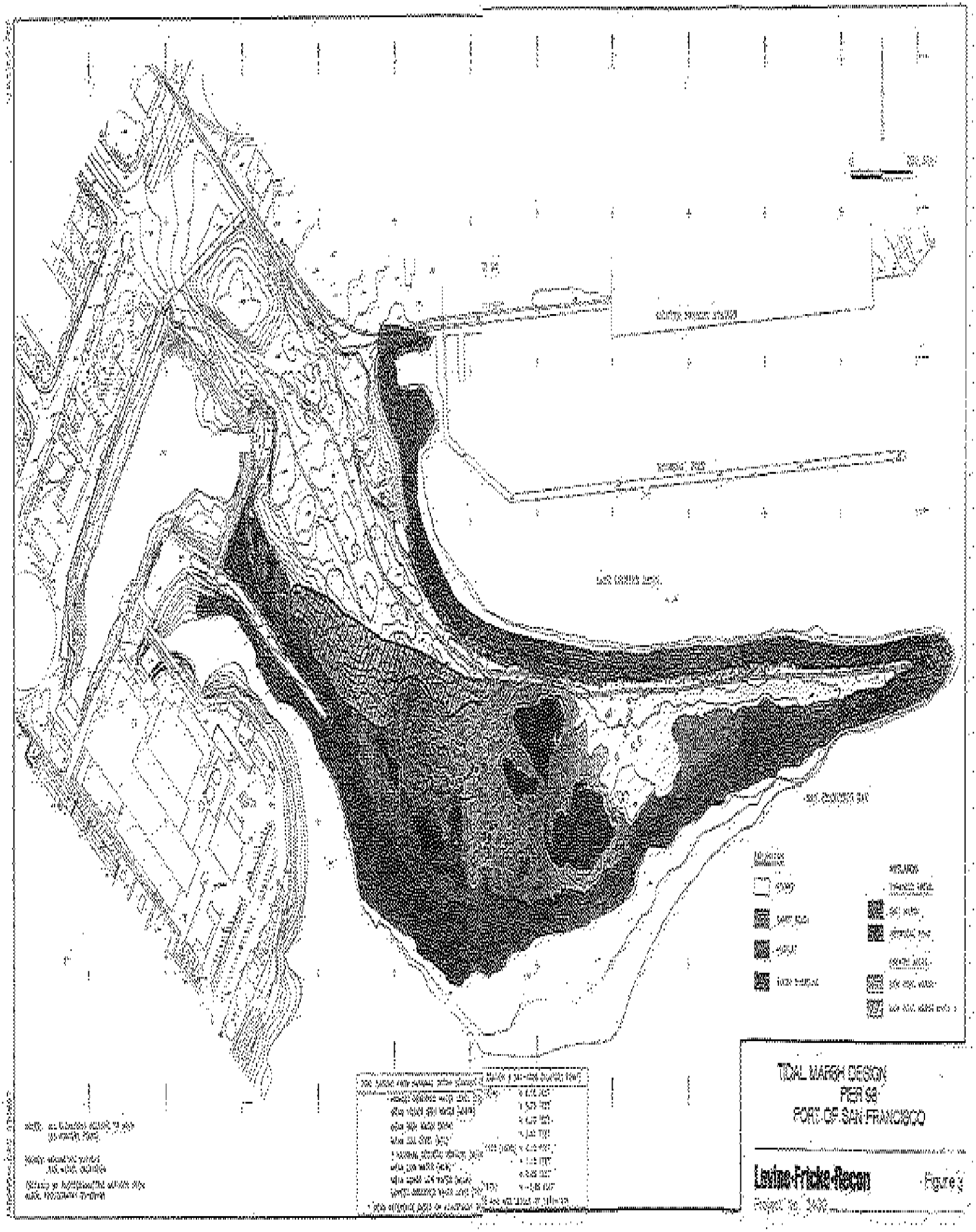
I-007626



ECOLOGICAL HABITATS
PIER 94
PORT OF SAN FRANCISCO

Levine-Fricke-Recon Figure 5
Project No: 3460

I-007627


TIDAL MARSH DESIGN
PIER 94
PORT OF SAN FRANCISCO
Levine-Fricke-Recon
Figure 5

I-007628